

What is claimed is:

1. A radio terminal comprising:  
means for performing power-save operations by intermittently activating a radio communication module for performing radio communication with a radio base station;  
end-to-end delay acquisition means for measuring the end-to-end delay time, which is the delay time required for end-to-end transmission and reception; and  
activation period modification determination means  
10 for modifying the activation period of said radio communication module such that the end-to-end delay time that has been measured by said end-to-end delay time acquisition means is equal to or less than a standard value that has been stipulated in advance
- 15 2. A radio terminal comprising:  
means for performing power-save operations by intermittently activating a radio communication module for performing radio communication with a radio base station;  
end-to-end delay acquisition means for measuring the end-to-end delay time, which is the delay time required for end-to-end transmission and reception;  
activation period notification packet transceiving means for both transmitting an activation period notification  
20 packet for reporting its own activation period to the terminal of a communication partner and receiving activation period  
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notification packets from the terminal of a communication partner; and

activation period modification determination means for directing said activation period notification packet 5 transceiving means to transmit an activation period notification packet to the terminal of a communication partner when the end-to-end delay time that has been measured by said end-to-end delay acquisition means is equal to or greater than a standard value that has been set in advance, comparing 10 the activation period that has been reported from the terminal of a communication partner by means of an activation period notification packet with its own activation period, and performing a modification to shorten its own activation period when its own activation period is equal to or greater than the 15 activation period of the terminal of the communication partner.

3. A radio terminal according to claim 1, wherein said end-to-end delay acquisition means measures said end-to-end delay time based on the time for a packet to make a round trip 20 to and from the terminal of a communication partner.

4. A radio terminal according to claim 2, wherein said end-to-end delay acquisition means measures said end-to-end delay time based on the time for a packet to make a round trip 25 to and from the terminal of a communication partner.

5. A radio terminal according to claim 3, wherein said packet is a PING packet.

6. A radio terminal according to claim 3, wherein said 5 packet is an RTCP packet.

7. A radio terminal according to claim 4, wherein said packet is a PING packet.

10 8. A radio terminal according to claim 4, wherein said packet is an RTCP packet.

9. A radio terminal comprising:  
means for performing power-save operations by  
15 intermittently activating a radio communication module for  
performing radio communication with a radio base station;  
a network delay time database for storing, for each  
fixed terminal that can be connected without the interposition  
of radio space, the network delay time from said radio base  
20 station to said fixed terminal; and  
activation period modification determination means  
for: acquiring the network delay time from said radio base  
station to a fixed terminal of a communication partner from  
said network delay time database before beginning  
25 communication with said fixed terminal; calculating the end-to-end delay time, which is the time required for end-to-end

transmission and reception, by adding the network delay time and the radio space delay time to said radio base station; and modifying the activation period of said radio communication module such that the end-to-end delay time is limited to the  
5 stipulated standard value or less.

10. An end-to-end delay control method for limiting end-to-end delay time, which is the delay time required for end-to-end transmission and reception, to a stipulated  
10 standard value or less in a radio terminal that performs power-save operations by intermittently activating a radio communication module for performing radio communication with a radio base station, said method comprising steps of:

measuring said end-to-end delay time; and  
15 modifying the activation period of said radio communication module such that said end-to-end delay time that has been measured is equal to or less than a standard value that has been stipulated in advance.

20 11. An end-to-end delay control method for limiting end-to-end delay time, which is the delay time required for end-to-end transmission and reception, to a stipulated standard value or less in a radio terminal that performs power-save operations by intermittently activating a  
25 radio communication module for performing radio communication with a radio base station, said method

comprising steps of:

- measuring said end-to-end delay time;
- transmitting to the terminal of a communication partner an activation period notification packet for reporting
- 5 its own activation period to the terminal of the communication partner when said end-to-end delay time that has been measured is equal to or greater than a standard value that has been set in advance,
- comparing its own activation period with the
- 10 activation period that has been reported by an activation period notification packet from the terminal of a communication partner; and
- carrying out modification to shorten its own activation period when its own activation period is equal to or
- 15 greater than the activation period of the terminal of the communication partner.

12. An end-to-end delay control method according to claim 10, wherein, in said step of measuring said end-to-end delay time, said end-to-end delay time is measured based on the time for a packet to make a round trip to and from the terminal of a communication partner.

13. An end-to-end delay control method according to claim 11, wherein, in said step of measuring said end-to-end delay time, said end-to-end delay time is measured based on

the time for a packet to make a round trip to and from the terminal of a communication partner.

14. An end-to-end delay control method according to  
5 claim 12, wherein said packet is a PING packet.

15. An end-to-end delay control method according to  
claim 12, wherein said packet is an RTCP packet.

10 16. An end-to-end delay control method according to  
claim 13, wherein said packet is a PING packet.

17. An end-to-end delay control method according to  
claim 13, wherein said packet is an RTCP packet.

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18. An end-to-end delay control method for limiting  
end-to-end delay time, which is the delay time required for  
end-to-end transmission and reception, to a stipulated  
standard value or less in a radio terminal that performs power-  
20 save operations by intermittently activating a radio  
communication module for performing radio communication  
with a radio base station, said method comprising steps of:

acquiring the network delay time from said radio  
base station to the fixed terminal of a communication partner  
25 from a network delay time database before starting  
communication with said fixed terminal;

calculating the end-to-end delay time, which is the time required for end-to-end transmission and reception, by adding the network delay time to the radio space delay time to said radio base station; and

- 5 modifying the activation period of said radio communication module such that the end-to-end delay time is limited to a stipulated standard value or less.